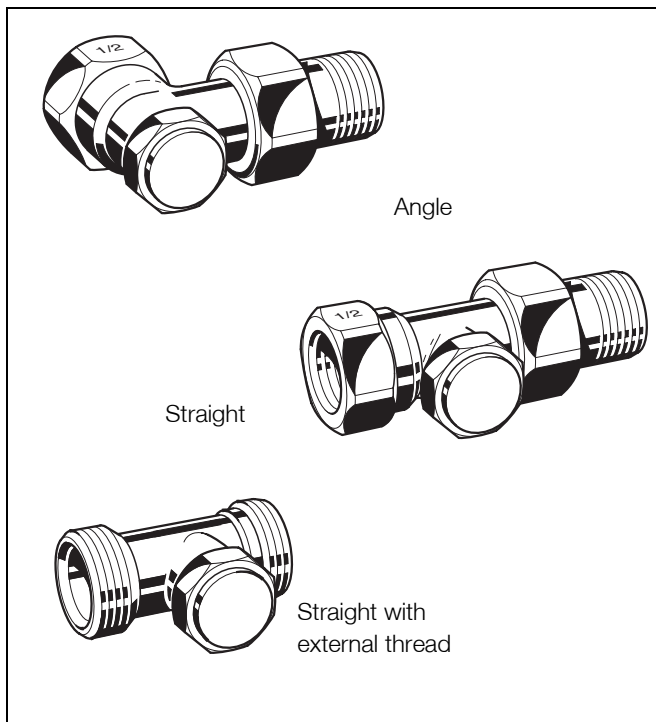


V2420 Verafix-E

PRE-SETTABLE LOCKSHIELD VALVE

Product specification sheet



Construction

The lockshield valve consists of:

- Valve housing PN10, DN10, 15 or 20 with
 - internal thread connection to DIN2999 (ISO7) or external thread connection to DIN/ISO228 on inlet
 - external thread connection to DIN/ISO228 with union-nut and radiator tailpiece (not V2406) on outlet
 - Body dimensions to DIN3842
- Valve insert
- Protection cap

Materials

- Valve housing made of nickel-plated red bronze
- Valve insert made of brass with EPDM seals
- Tailpiece, protection cap and union-nut made of nickel-plated brass

Application

The Verafix-E is a pre-settable radiator lockshield valve for the return connection of radiators or heat exchangers. It is used:

- in typical two-pipe heating systems
- in special applications in one-pipe heating systems for shutoff and regulation of individual radiators. Together with a draining adapter (see 'Accessories') radiators can be drained or filled with the system in operation. The pre-setting isn't affected by this.

Installation in supply also possible, draining/filling function isn't supported.

The lockshield valve is suitable for hot water and low pressure steam heating systems and cold water cooling systems.

Special Features

- Pre-setting, shutoff and draining/filling with one valve
- Pre-settable by stroke limitation
- Optional flow direction. Performance values apply for both directions
- Piston externally O-ring sealed
- Body dimensions to DIN3842
- Robust corrosion-resistant red bronze housing
- Connection to all types of pipe DN10...DN20
- Easy identification: cover cap with octagon and circular collar on top; also see illustration identification

Technical Data

Medium	Water, water-glycol mixture Quality to VDI2035
Operating temperature	2...130°C (36...266°F)
Operating pressure	PN 10
k_{vs}(cv)-values	Angle 1.70 (1.99) Straight DN 10 1.40 (1.64) Straight DN 15 1.45 (1.70) Straight DN 20 1.50 (1.76)

Method of Operation

The Verafix-E connects the return of a radiator or heat exchanger to the heating loop and has the functions regulation, shutoff and draining/filling.

Regulation: The flow can be regulated by pre-setting the Verafix-E to a certain value derived from the flow diagram. By pre-setting, the opening between valve insert and valve seat is reduced. In this way the flow is throttled. The Verafix-E is supplied set fully open.

Shutoff: The return of the radiator can be shutoff by closing the valve insert.

Draining: Draining or filling of the radiator is carried out with the draining adapter (see 'Accessories'). Draining of individual radiators using the Verafix-E has no influence on the water loop or other radiators in the loop.

Detailed illustrations of above functions chapter Shutoff/Draining and Pre-setting.

Please note:

- To avoid stone deposit and corrosion the composition of the medium should conform with VDI-Guideline 2035
- Additives have to be suitable for EPDM sealings
- System has to be flushed thoroughly before initial operation with all valves fully open
- Any complaints or costs resulting from non-compliance with above rules will not be accepted by Honeywell
- Please contact us if you should have any special requirements or needs

Dimensions and Ordering Information

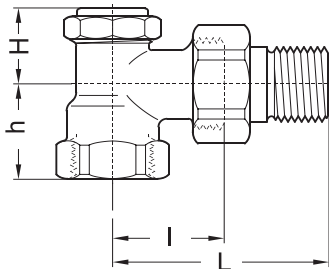


Fig. 1. Angle

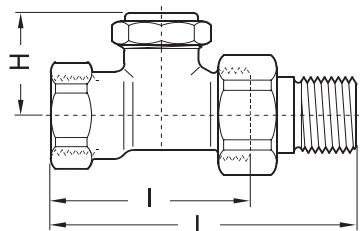


Fig. 2. Straight

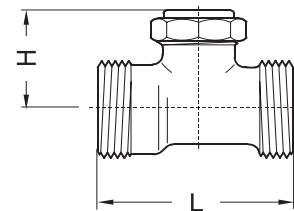


Fig. 3. Straight with external threads

Table 4. Dimensions and OS-Nos (OS=Ordering System)

Type	DN	Pipe connection	k _{vs} (c _{vs})-value	Dimensions in mm				OS-No.
				L	I	H	h	
Angle (Fig 1)	10	Rp 3/8"	1.70 (1.99)	52	26	23	22	V2420E0010
	15	Rp 1/2"	1.70 (1.99)	58	29	23	26	V2420E0015
	20	Rp 3/4"	1.70 (1.99)	66	34	27	29	V2420E0020
Straight (Fig. 2)	10	Rp 3/8"	1.40 (1.64)	75	49	30	—	V2420D0010
	15	Rp 1/2"	1.45 (1.70)	80	51	30	—	V2420D0015
	20	Rp 3/4"	1.50 (1.76)	91	59	30	—	V2420D0020
Straight with external threads (Fig. 3)	15	G3/4"	1.45 (1.70)	51	—	30	—	V2426D0015

All dimensions in mm unless stated otherwise.

Installation Examples

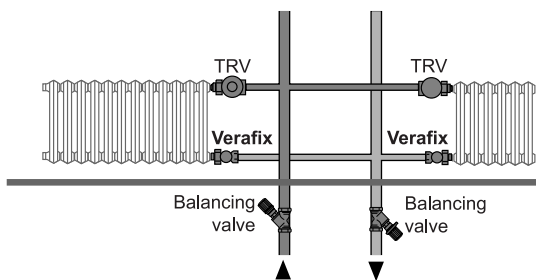


Fig. 5. Installation example heating system

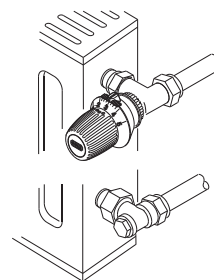



Fig. 6. Installation example radiator

Accessories


Connections for V2420

Compression fitting for COPPER and STEEL pipe.
Consisting of compression nut and compression ring.
For valves with internal thread.

	Valve size	Pipe dimension	Part number	Pcs/pack
	3/8" (DN10)	10 mm	FIG3/8CS10	1
	3/8" (DN10)	12 mm	FIG3/8CS12	1
	1/2" (DN15)	10 mm	FIG1/2CS10	1
	1/2" (DN15)	12 mm	FIG1/2CS12	1
	1/2" (DN15)	14 mm	FIG1/2CS14	1
	1/2" (DN15)	15 mm	FIG1/2CS15	1
	1/2" (DN15)	15 mm	FIG1/2CS15-10	10
	1/2" (DN15)	16 mm	FIG1/2CS16	1
	3/4" (DN20)	18 mm	FIG3/4CS18	1
	3/4" (DN20)	22 mm	FIG3/4CS22	1


Support inserts have to be used for copper or soft steel pipe with 1.0 mm wall thickness. Max. operating temperature 120°C, max. operating pressure 10 bar.

Compression fitting for COPPER and SOFT STEEL pipe.
Consisting of compression nut, compression ring and support insert.
For valves with internal thread.

	Valve size	Pipe dimension	Part number	Pcs/pack
	3/8" (DN10)	12 mm	FIG3/8CSS12	1
	1/2" (DN15)	12 mm	FIG1/2CSS12	1
	1/2" (DN15)	14 mm	FIG1/2CSS14	1
	1/2" (DN15)	15 mm	FIG1/2CSS15	1
	1/2" (DN15)	16 mm	FIG1/2CSS16	1
	1/2" (DN15)	18 mm	FIG1/2CSS18	1
	3/4" (DN20)	18 mm	FIG3/4CSS18	1

Support inserts have to be used for copper or soft steel pipe with 1.0 mm wall thickness. Max. operating temperature 120°C, max. operating pressure 10 bar.


Compression fitting for MULTILAYER pipe.
Consisting of compression nut, compression ring and support insert.
For valves with internal thread.

	Valve size	Pipe dimension	Part number	Pcs/pack
	1/2" (DN15)	16 mm	FIG1/2M16X2	1

Max. operating temperature 90°C, max. operating pressure 10 bar.

Connections for 2406


Compression fitting for COPPER and STEEL pipe.
Consisting of one-piece (preassembled) nut.
Soft sealing connection.
For valves with external thread G3/4".

	Connection	Pipe dimension	Part number	Pcs/pack
	G3/4"	10 mm	FEG3/4CS10	1
	G3/4"	12 mm	FEG3/4CS12	1
	G3/4"	14 mm	FEG3/4CS14	1
	G3/4"	14 mm	FEG3/4CS14-10	10
	G3/4"	15 mm	FEG3/4CS15	1
	G3/4"	15 mm	FEG3/4CS15-10	10
	G3/4"	16 mm	FEG3/4CS16	1
	G3/4"	18 mm	FEG3/4CS18	1

Reinforcing insert for copper or soft steel pipe with 1.0 mm wall thickness not required.


Max. operating temperature 90°C, max. operating pressure 10 bar.

Compression fitting for PEX pipe.
Consisting of one-piece (preassembled) nut and reinforcing insert.
Soft sealing connection.
For valves with external thread G3/4".

	Connection	Pipe dimension	Part number	Pcs/pack
	G3/4"	12x1,1 mm	FEG3/4P12X1.1	1
	G3/4"	16x1,5 mm	FEG3/4P16X1.5	1

Max. operating temperature 90°C, max. operating pressure 10 bar.

Compression fitting for PEX and MULTILAYER pipe.
Consisting of one-piece nut with preassembled anti-torsion elastic compression ring and one-piece reinforcing insert.
For valves with external thread G3/4".

	Connection	Pipe dimension	Part number	Pcs/pack
	G3/4"	14x2 mm	FEG3/4PM14X2	1
	G3/4"	16x2 mm	FEG3/4PM16X2	1
	G3/4"	16x2 mm	FEG3/4PM16X2-10	10
	G3/4"	16x2,2 mm	FEG3/4PM16X2.2	1
	G3/4"	17x2 mm	FEG3/4PM17X2	1
	G3/4"	17x2 mm	FEG3/4PM17X2-10	10
	G3/4"	18x2 mm	FEG3/4PM18X2	1
	G3/4"	18x2 mm	FEG3/4PM18X2-10	10
	G3/4"	20x2 mm	FEG3/4PM20X2	1

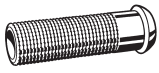
Max. operating temperature 90°C, max. operating pressure 10 bar.

Radiator tailpiece with thread up to collar



for valves DN10 (3/8")	VA5201A010
for valves DN15 (1/2")	VA5201A015
for valves DN20 (3/4")	VA5201A020

Extended radiator tailpiece, nickel-plated, to be shortened as required



3/8" x 70 mm (for DN10) thread approx. 50 mm	VA5204B010
1/2" x 76 mm (for DN15) thread approx. 65 mm	VA5204B015
3/4" x 70 mm (for DN20) thread approx. 60 mm	VA5204B020

Soldering tailpiece (Outphased)



3/8" x 12 mm (for DN10)	VA5230A010
1/2" x 15 mm (for DN15)	VA5230A015
3/4" x 22 mm (for DN20)	VA5230A020

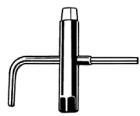
Valve Accessories

Draining adapter



for all sizes VA3300A001

Verafix key



for all sizes VA8300A001

Identification

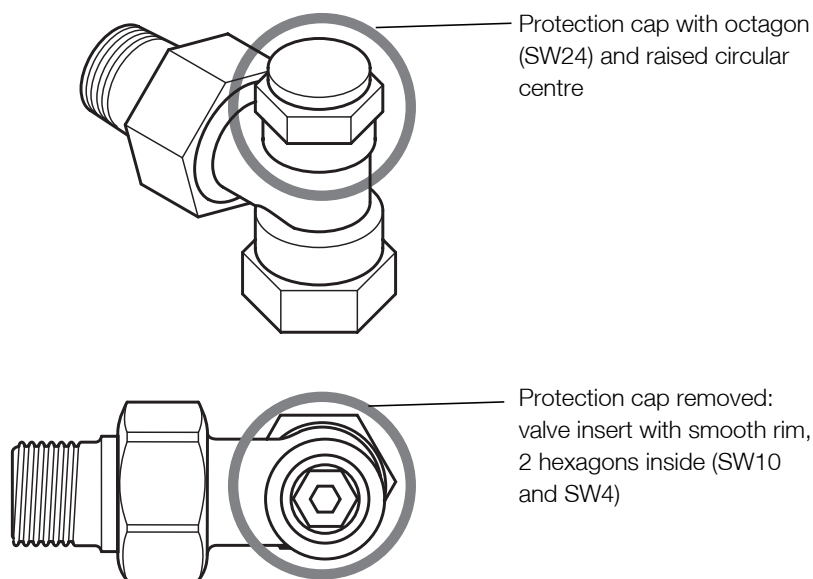


Fig. 7. Identification of Verafix-E

Service Parts

Cover cap Verafix-E



for all sizes VS3301C001

Sealing ring for cover cap



for all sizes VS3302A001

Exchange valve insert



Verafix type VS1300VF02

Pressure cap – for shutting off valves on radiator outlet



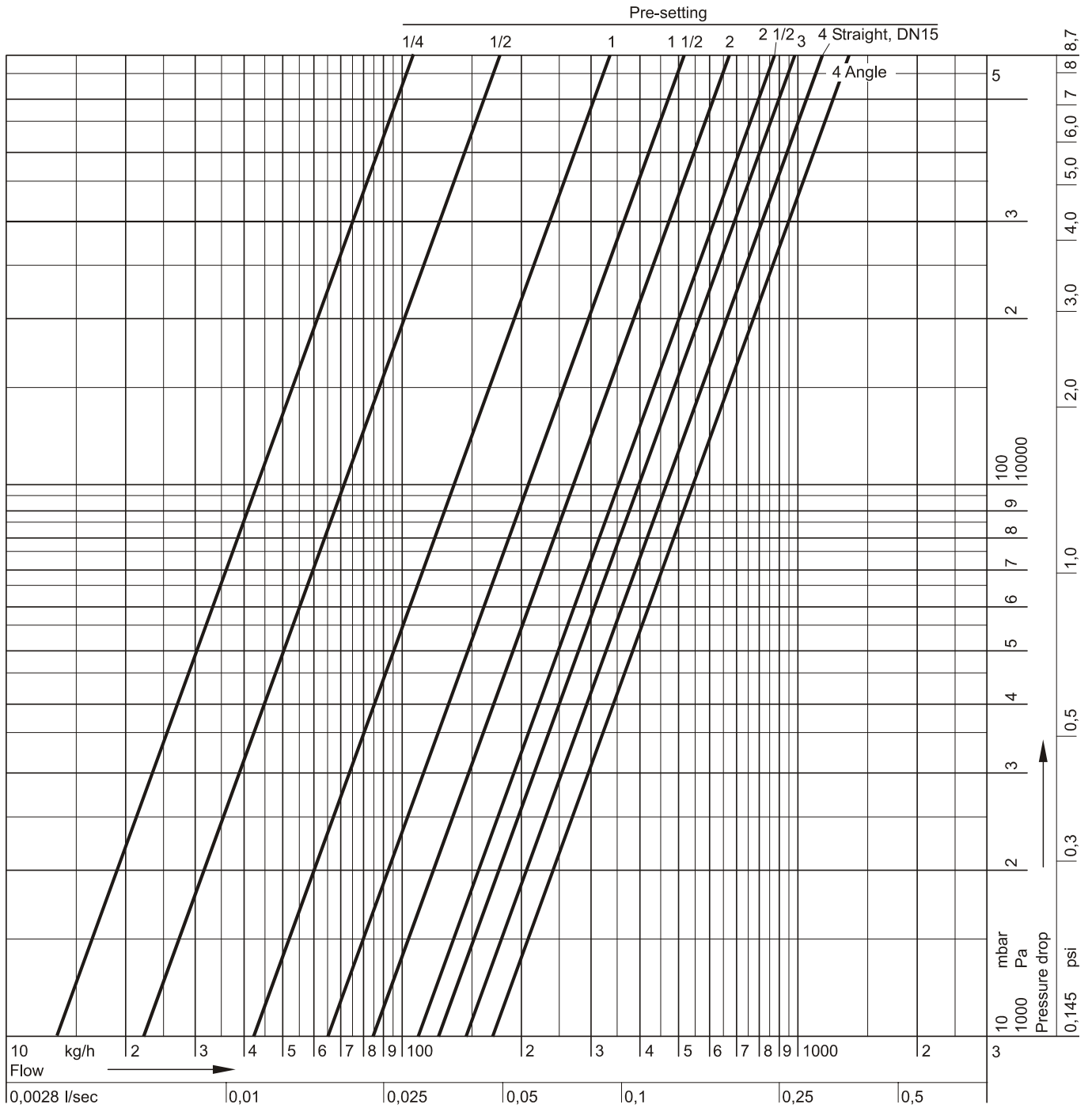
for valves DN10 (3/8")	VA2202A010
for valves DN15 (1/2")	VA2202A015
for valves DN20 (3/4")	VA2202A020

Sealing ring for pressure cap



for valves DN10 (3/8")	VA5090A010
for valves DN15 (1/2")	VA5090A015
for valves DN20 (3/4")	VA5090A020

Flow Diagram



Turns of pre-setting screw	1/4	1/2	1	1 1/2	2	2 1/2	3	4 = open = k _{vs}			
								Angle (Fig. 1)	Straight (Fig. 2)		
									DN 10	DN 15	DN 20
k_v-value	0.13	0.22	0.43	0.65	0.85	1.10	1.25	1.70	1.40	1.45	1.50
cv-value	0.15	0.26	0.50	0.76	0.99	1.29	1.46	1.99	1.64	1.70	1.76

See chapter presetting for pre-setting instructions.

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